PACKAGING

THE CAHNERS MAGAZINE FOR DECISION-MAKERS/JUNE 1991

EXCLUSIVE CONSUMER SURVEY

Annual Study Probes What Consumers Want

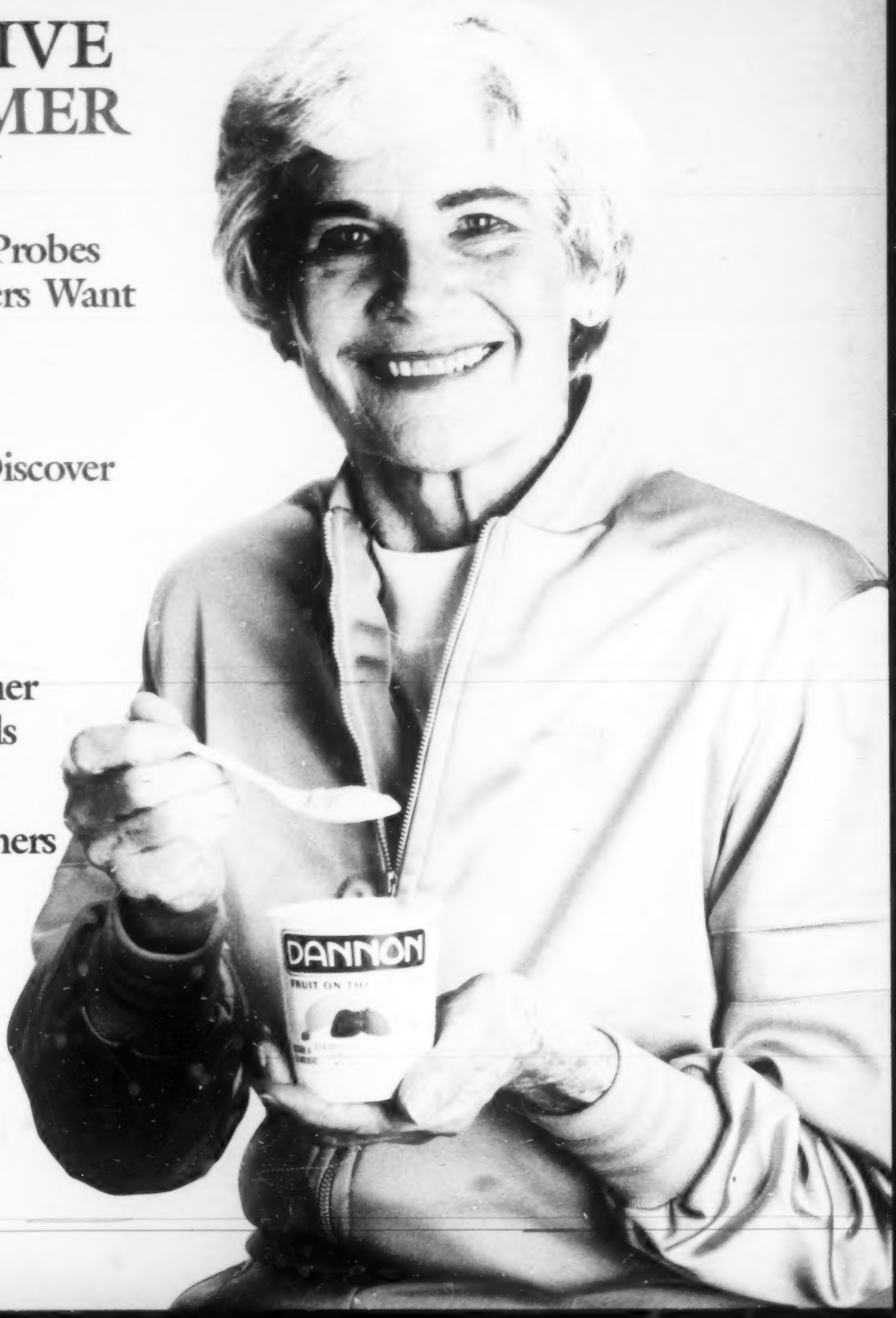
New Demand: Easy Resealing

Older Singles Discover Single-Serve

Package Testing Saves Money

Package Refresher Course: Aerosols

Help Pick 1991 Innovator Winners



BREAKING NEWS

PACKAGING, May 1991.) The CFTA argues that the bill is unnecessary because federal regulations already require disclosure of a container's net contents on package labels.

Corrugated supplier touts change in specs: A spokesperson for Menasha Corp. says manufacturers who ship their products by common carrier can save on freight costs and increase productivity under a new regulation known as Alternate Rule 41/Item 222. (See PACKAGING, March 1991.) Bill Whitsitt, materials and testing consultant, says the rule's emphasis on stacking strength reduces the likelihood of overpackaging.

Corrugated executive questions recycling: During an address presented at the spring meeting of the Association of Corrugated Converters, Monte Haymon, president and CEO of Packaging Corp. of America, asked a number of provocative questions regarding corrugated recycling. Among them: What is recycled fiber and who will define it? How much recycle content will be required by the market? What premium, if any, will the market pay? He then stated, "As recyle content is driven up, and it will be, the large majority of linerboard machines—perhaps as much as 80% of them—will have difficulty holding compression values. Thus it is important that independent converters partner with suppliers who can deliver both compression and recycle content in the same product."

Recycling seen affecting plastic demand: A new report from Market Search, Inc., Toledo, Ohio, says plastics used in packaging will reach a total 19 billion pounds in 1996, up from 16 billion pounds in 1991. Recycling will have a big impact, according to an analyst. She says increased use of recycled resin will cause a loss of business to polymer suppliers while creating a corresponding opportunity for recyclers.

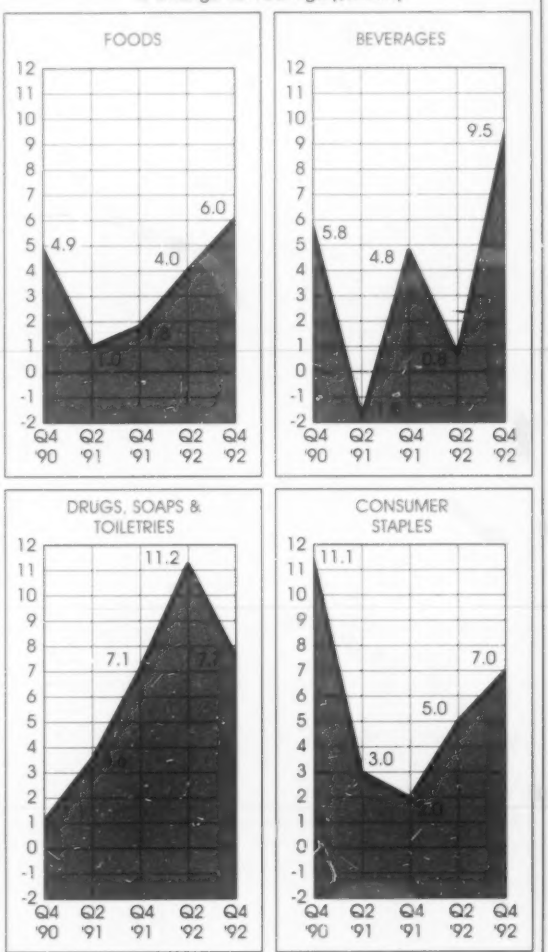
Study group foresees growth in use of PS: A new report from The Freedonia Group, Cleveland, Ohio, says North American demand for polystyrene in packaging should expand 2.8% annually through 1995 and reach 3.1 billion pounds by 2000.

Tube Council honors brainstorms: The Tube Council of North America, New York, N.Y., has announced winners of its 1990 Tube Contest. Among them: butter in a tube, Jell-O gelatin in a tube and Play-Doh modeling clay in a tube. Perhaps best of all is a proposal for a family line of toothpaste: one flavor for Dad, one for Mom and one for the kids.

SHIPMENTS BETTER

The U.S Commerce Dept. has revised its figures on manufacturers' shipments of key industries, including foods, beverages and pharmaceuticals. For the most part, shipments have been better than first reported. Cahners Economics forecasts also show that the economy is expected to begin shaking off the recession beginning with the third quarter. Still, beverage shipment growth will be erratic through next year and the broader-based consumer-staple measure will only begin to rise early next year.

MANUFACTURERS' SHIPMENTS
% Change Vs. Year Ago ($Billions)

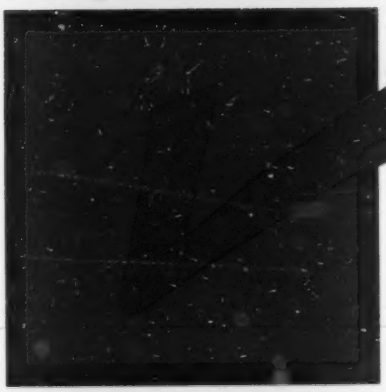


Data Source: U.S. Dept. of Commerce Forecast: Cahners Economics

PACKAGING

A CAHNERS PUBLICATION
VOLUME 36 NUMBER 7

Predistribution testing of your package is crucial to saving money for the long haul.
Page **38**



Mark your ballots now for the most innovative packaging products of 1991.
Page **15**

Exquisite labels are protected with low-dust fiber partitions.
Page **57**

PACKAGING FEATURES

NEWS

1991 Innovator Awards Ballot **15**
Deadline for votes is July 1

PACKAGING CONSUMER SURVEY

Consumers want it all **32**
Easy open, easy close, single-serve convenience, recyclability—consumers in the '90s want the complete package, our exclusive survey shows

Microwave use jumps among younger singles and couples **33**

Older singles discover single-serve containers **35**

PRODUCT BREAKTHROUGHS

Testing saves you money **38**
You could be seriously under- or overpackaging. There's only way to know for sure—lab testing

Quick Reference Chart **40**

MARKETING

Aluminum shampoo bottle makes a splash **45**
Surprising container grabs attention for maker of salon hair-care products

On the cover: As the number of older consumers increases, their buying habits are having a greater impact on packaging. Photo by Vuksanovich, Inc. Page **32**

PRODUCT REVIEW

Aerosol containers 43
Three materials—metal, plastic and glass—benefit a product's shelf life and shelf presence

Quick Reference Chart 43

PACKAGING NEWS

GE cuts sealants packaging 21
Peggable, laminated tubes can also stand on retailer shelves

Redesign boosts Cutex nail-care line 21
Carded-blister packs sport fun splashes of color

Multilayer pouch is a riveting success 22
Tough film replaces paperboard box for rivets

How-to guide teaches recycling 27
Tells how to set up a school-based program

FPA issues 'green labeling' statement 27
Supports appropriate, voluntary information; federal guidelines

PACKAGING TECHNOLOGY

Hot-melt aids labeling of hot-fill bottles 57
High-heat conditions create a challenge for adhesive

Fiber partitions protect wine's label 57
Low dust levels end need to clean incoming bottles

DEPARTMENTS

BREAKING NEWS	1	PACKAGING MATERIALS	55
EDITORIAL	11	NEWSBRIEFS	60
ON THE LINE	12	CLASSIFIED	61
ENVIRONMENTAL NEWS	27	ADVERTISERS INDEX	68
PACKAGING EQUIPMENT	46	READER SERVICE CARD	69

COMING NEXT MONTH

The Fifth Annual PACKAGING 100
The 100 largest domestic consumers of packaging materials and containers are ranked and evaluated.

Closure developments offer convenience
Flip-tops, twist-tops, push-pulls—today's closures are making more products more convenient. The issues of consumer safety and child-resistance remain important considerations.

Refresher course on palletizers
From the packaging line to the store, palletizing machinery prepares products for distribution and storage.

Peggable tubes replace clamshell blisters for GE sealant line. Page **21**

THE STAFF

JOHN BLATNIK
Publisher

ROBIN ASHTON
Editor in Chief

MERLE MULLINS
Managing Editor/Production

GREG ERICKSON
Managing Editor

MELISSA LARSON
Senior Editor

MARK SPAULDING
Senior Editor

LISA McTIGUE PIERCE
Staff Editor

ANTONIOS PRONOITIS
VP/Executive ArtDirector

JUDY WHITT
Director of Art Department

GLEN LUENSMAN
Assoc. Dir., Art Department

QUEENIE BURNS
Senior Art Director

DEENA ZYMM
Associate Art Director

GILBERT MUÑOZ
Director of Graphic Production

RALPH A. BURRIS
Production Supervisor

KATHY KIKKE
Advertising Production Manager

NANCY COOPER
Director of Advertising Contracts

KRIS CUNNINGHAM
Circulation Manager (Denver)

EDITORIAL OFFICES
DES PLAINES, ILL.
60017-5080
Cahners Plaza
1350 E. Touhy Ave.
P.O. Box 5080
708/635-8800

ERNIE KUMMER
Dir. Corp. Reprint Services

LARRY HAYS
Director of Research

MARY O'GRADY
Research Manager

KATE JERNEY
Administrative Services

MARY WILLIAMS
Manager, Marketing Services

CHARLES E. MOODHE
Senior Vice President/
General Manager
Chicago Division

PACKAGING and MARKETING PLUS are registered trademarks of Reed Properties Inc., used under license.

CONSUMERS WANT IT ALL

Easy open, easy close, single-serve convenience, recyclability—consumers in the '90s want the complete package, our exclusive survey shows

By Robin Ashton, Editor in Chief

Consumers are demanding more from packaging.

It's no longer enough that packages provide the basics—that they preserve flavor and freshness, provide value, or protect against tampering—though packages that fail to meet these standards are doomed to failure.

No, consumers now want packages that also offer a host of convenience features, some of them contradictory.

Meeting these complex demands is the challenge facing packagers in the 1990s. The stakes are high: A successful package sells product; a flawed package creates liabilities that go beyond poor sales.

Helping packagers anticipate and act on shifting consumer demands is the purpose of PACKAGING's exclusive annual Consumer Survey.

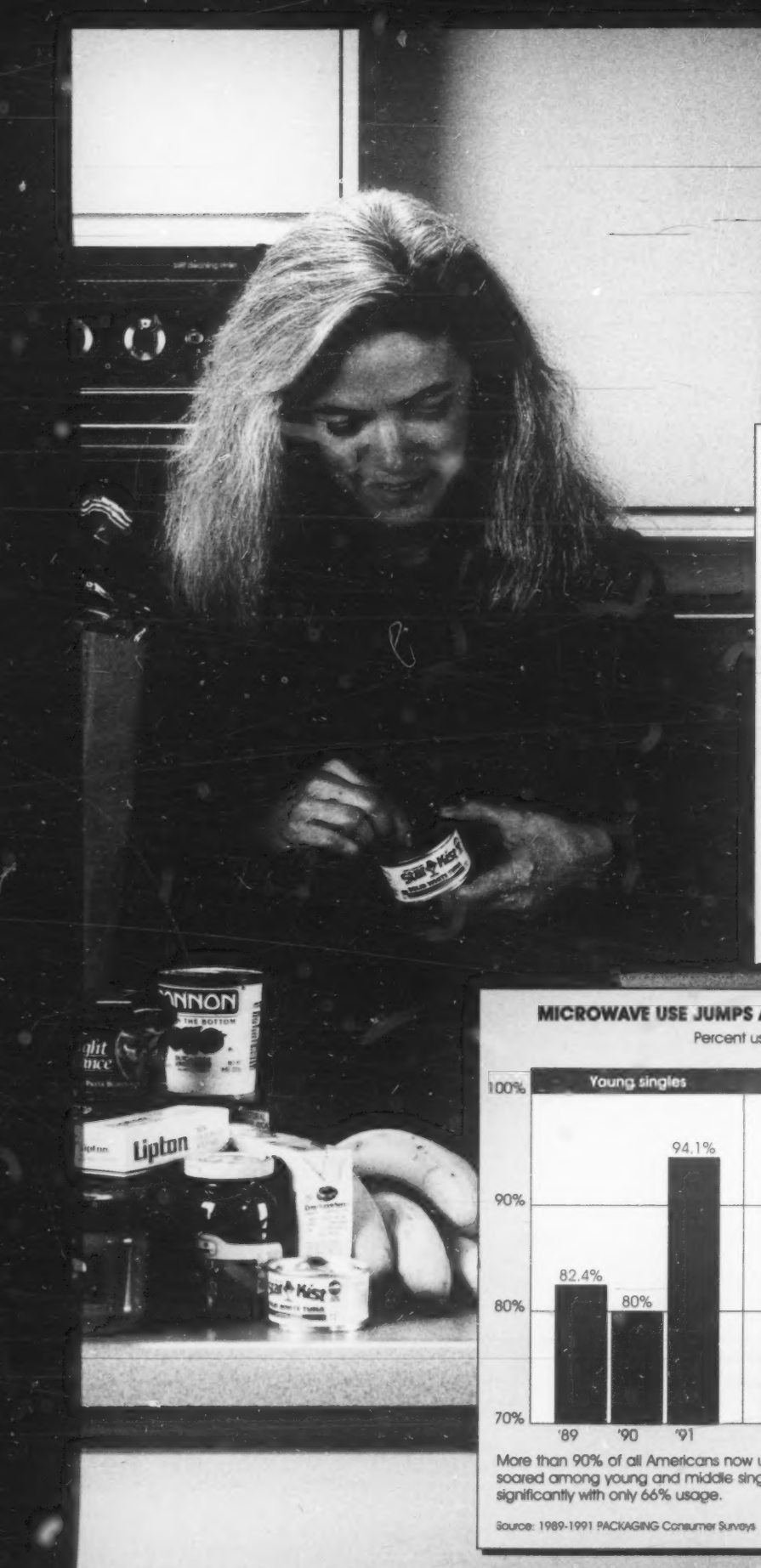
Key findings

Findings from our sixth survey, conducted with help from leading consumer research firm National Family Opinion in January, show significant changes in the use and importance of several key packaging performance features:

- The importance of resealability is growing rapidly for food, pharmaceutical and even personal-care products.
- Ease of opening is also growing more important.
- Older consumers have discovered single-serve food containers; use among older singles skyrocketed, while that among young singles plummeted.
- Use of microwave ovens has jumped dramatically among younger consumers, perhaps as economic conditions restrict their eating away from home. More than 98% of young couples now claim to use microwaves at home.
- At the same time they demand more convenience features, consumers also want *less* packaging. Nearly 80% believe some products use too much packaging. And almost 50% say they will reject products that appear overpackaged, an 11-point jump over 1990. A base trend that lies behind several of these shifts is the gradual aging of the population. This is an overall change that packagers should watch closely and try to anticipate as the decade progresses.

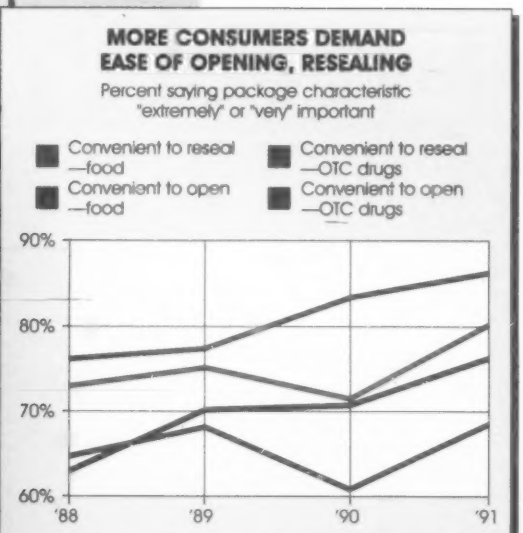
It is also clear that consumers want packaging that makes them feel good about the environmental consequences

Copyright 1991, PACKAGING Magazine Cahners Publishing Co., a div. of Reed Publishing U.S.A.



MORE CONSUMERS DEMAND EASE OF OPENING, RESEALING

Percent saying package characteristic "extremely" or "very" important

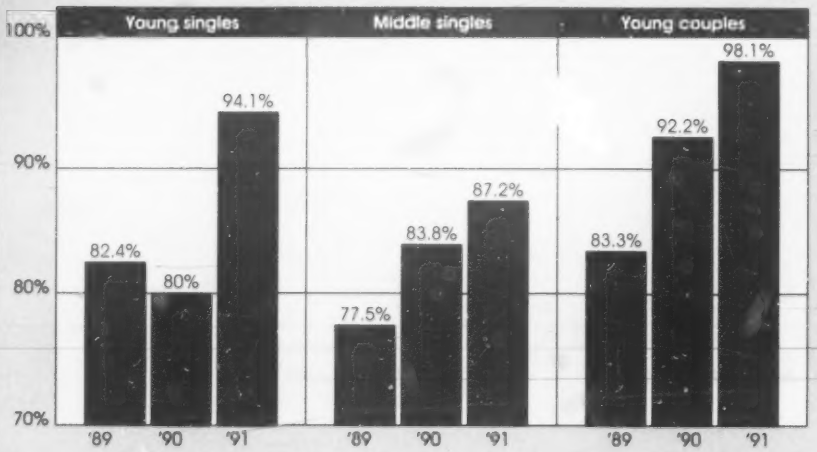


Easy to open, easy to reseal--these package characteristics are increasingly important to consumers as they purchase food and over-the-counter pharmaceuticals.

Source: 1988-1991 PACKAGING Consumer Surveys

MICROWAVE USE JUMPS AMONG YOUNGER SINGLES AND COUPLES

Percent using microwave ovens at home



More than 90% of all Americans now use a microwave oven at home. During the past year, use soared among young and middle singles and young couples. Older singles trail other Americans significantly with only 66% usage.

Source: 1989-1991 PACKAGING Consumer Surveys

of their choices. They are willing to take some action—70% claim to recycle and nearly 70% say they are willing to spend more for recyclable packages. But most are not willing to sacrifice convenience.

In the text and charts that follow, we will examine some of these key findings in more detail and also look at new data, such as package preference for household products and important package characteristics of personal-care products, included in the survey for the first time.

Resealing it right

The convenience of resealability is increasingly important to consumers.

"Convenient to reseal" now ranks third in characteristics consumers consider extremely or very important for food packaging. This represents a jump of nine points over 1990.

Resealability sits less than two percentage points behind the leading characteristic consumers demand of over-the-counter drug packages, tamper evidence. It rose four points this year.

Resealability is the second most important characteristic for personal-care products.

The importance of easily resealable packages rose across nearly all demographic groups this year. Very significant gains, in excess of 10 percentage points, were reported by consumers under 30, working older couples, and those in their 30s and 40s. Resealability is most important to older consumers, married or single, working or retired.

Possible actions: Continue development of new resealing technologies, particularly for flexible packages and drugs. Market resealability of older package types, especially rigid containers.

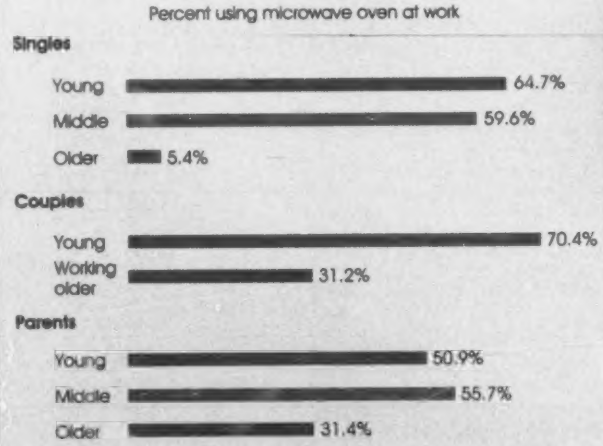
Serving the older single

The most dramatic shift detailed by the survey is the discovery of single-serve food containers by older singles.

A year ago, a full two-thirds of older singles said they never or seldom used single-serve foods. This year,

WHO ZAPS THE BROWN BAG? MICROWAVE USE AT WORK

Percent using microwave oven at work

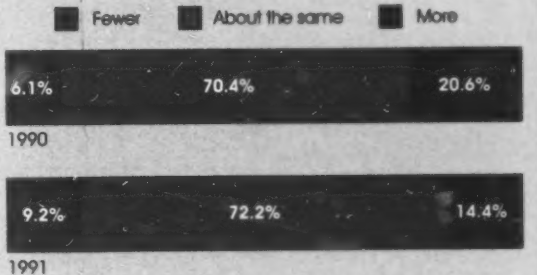


Microwave use at work is highest among young and middle singles and young couples, though parents as a group have the highest average usage. Older singles have very low usage rates.

Source: 1991 PACKAGING Consumer Survey

OVERALL SINGLE-SERVE GROWTH SLOWS

Plans for use of single-serve containers



The recession may be slowing growth of food products sold in single-serve containers, though the trend remains on the positive side. Middle singles continue to be a prime market: More than 25% are buying single-serve.

Source: 1990-1991 PACKAGING Consumer Surveys

fewer than 40% reported such light use. In contrast, the percentage noting use three or more times a week jumped from 18% to 27%.

Foods in single-serve packages make a great deal of sense for older consumers on their own. They reduce product waste, provide greater variety and often minimize clean-up.

A proliferation of new single-serve products in formulations with reduced fats, sugar and sodium may also be contributing to growth in this area.

In contrast to single-serve growth among older singles, use among young singles dropped dramatically. Young singles reporting use three or more times a week fell from 37% to 23%.

Possible actions: From the beginning, many single-serve food products were targeted at children, younger singles and parents. Older singles, a group that will grow dramatically in coming years, will demand single-serve products with more variety and sophistication, stronger flavors and formulations that limit fats, sugars and sodium.

As a group, younger singles and couples have traditionally trailed other consumers in their use of microwave ovens. No more.

The percentage of young singles who said they use microwaves at home jumped 14 points in the current survey, to more than 94%.

Young couples, who reported usage of 83% in 1989, now place that usage at an astounding 98%, the highest of any demographic group.

Microwave usage by middle singles is also up 10 points in two years to 87%.

This compares with usage of 90.6% for respondents as a whole, up more than one point from the 1990 survey.

One factor in the growing use of microwaves among young consumers may be the recession's effect on their ability to eat at restaurants.

Possible actions: Whether younger consumers will stay home and use their microwaves after their finances improve is problematic. A bigger opportunity may be

CONSUMERS PREFER PLASTICS FOR MOST HOUSEHOLD PRODUCTS

Package preference for household products

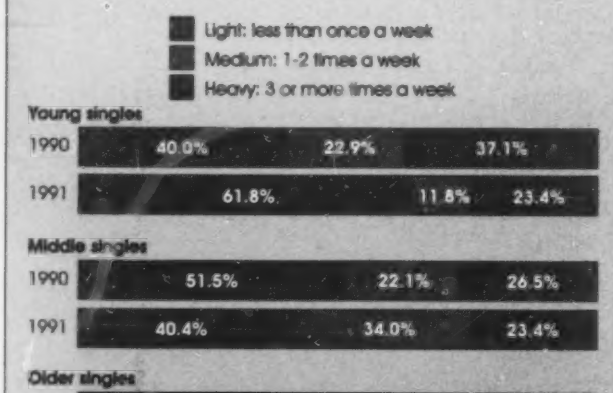
Product	Glass bottles	Plastic bottles	Aerosol cans	Paper boxes
Glass cleaners	14.7%	76.4%	4.8%	3.0%
Floor cleaners	13.0	78.1	2.0	4.9
Laundry detergents	2.6	36.5	—	59.7
Fabric softeners	4.2	57.2	—	35.2
Furniture polish	16.9	45.5	33.9	2.3
Shoe polish	18.4	65.7	6.2	5.5

Consumers overwhelmingly prefer plastic containers for most cleaners and other household products. An important exception is laundry detergents, where paper leads.

Source: 1991 PACKAGING Consumer Survey

OLDER SINGLES DISCOVER SINGLE-SERVE CONTAINERS

Use of food in single-serve containers



A dramatic turnaround in single-serve use: Use by older singles has jumped substantially while the trend for young singles is just the opposite.

Source: 1990-1991 PACKAGING Consumer Surveys

older singles, a demographic group with a strong growth rate. Their use of microwaves, mired at 66%, shows the greatest potential for growth.

Fewer off-flavors

The work many suppliers and food packagers have done improving organoleptic factors appears to be paying off. The percentage of consumers who blamed packaging for off-flavors or aromas in food dropped to 16.4% in the latest survey, down from 19.6% last year and 21.5% in 1989.

The alleged culprits have not changed significantly: paperboard for frozen entrees and potato/rice/pasta items, many of them microwavable; plastics for processed meats; metal containers for juice products; paperboard or plastics for dairy items; paperboard, plastics or metal for vegetables.

Possible actions: Extensive testing of the relationship between packaging materials and product is obviously worthwhile. New technologies—in susceptors, cartons that minimize wicking and microwave trays, for example—can also help reduce unwanted flavors and odors.

Packages consumers hate

Asked to describe the package they dislike the most, consumers name packages they also claim to love.

For example, nearly 20% of respondents said they dislike plastic packaging; the figure jumps to nearly 30% if foam fast-food packaging is added. And yet, consumers prefer plastic packaging for microwave use, for vegetables, pasta, milk, bottled water and for nearly all household products.

More than 15% named packages that are difficult to open or make it difficult to remove the product as those they dislike most. And yet nearly all consumers demand tamper-evident and child-resistant features.

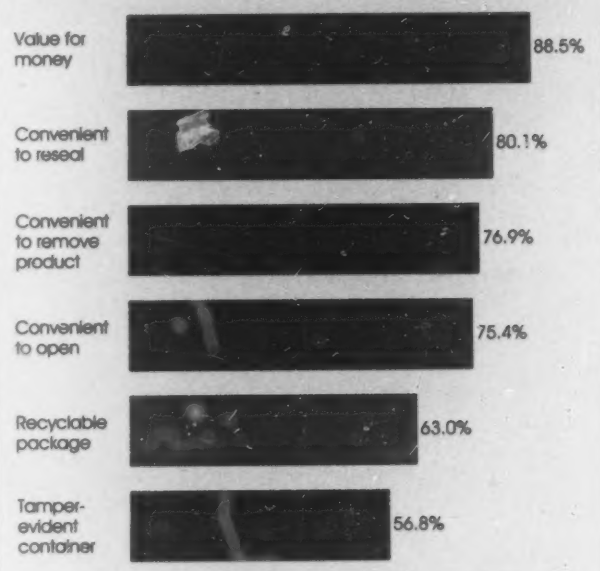
More than 14% pointed to overpackaged products as their main dislike. And yet most consumers continue to demand features that add packaging components.

Possible actions: In one sense, packages consumers dislike are the mirror image of what they want. The hard question is whether they are willing to give up other features they also demand.

The ambivalence revealed by consumers' likes and dislikes goes to the heart of the challenge packagers face in the 1990s. Consumers do not understand that some features they demand of packaging conflict. They just know they want them all. ■

VALUE COUNTS IN PERSONAL-CARE PRODUCTS

Percent saying package characteristic "extremely" or "very" important



In spite of the upscale image of many personal-care products such as shampoos and body lotions, consumers rank value as the most important package characteristic.

Source: 1991 PACKAGING Consumer Survey

PROFILE OF THE RECYCLING CONSUMER

Consumer groups more likely than average to recycle used packages and to consider recyclability when purchasing.

People who recycle more than average	People who buy recyclability more than average
Young couples	Older singles
All parents	Young and retired older couples
30-39 year olds	All parents
40-49 year olds	40-49 year olds
Those with incomes more than $35,000	60+ year olds
Those with some college or more	Those with incomes less than $20,000 or more than $35,000
Westerners	Those with some college or more
Residents of small towns and rural areas	Midwesterners
	Westerners
	Residents of small towns and rural areas
	Residents of metropolitan areas 500,000 to 1 million

Much has been made of the so-called "green" consumer. But as this profile demonstrates, those who actively recycle and most often consider recyclability when purchasing are very diverse. Young couples are the most likely to recycle, with 83.3% claiming to do so, compared with an average of 70%. Older singles most often consider recyclability when making purchases. Perhaps surprisingly, residents of small towns and rural areas are the most active recyclers and are most influenced by recyclability.

Source: 1991 PACKAGING Consumer Survey

PACKAGING's 1991 Consumer Survey probes consumer attitudes about packaging with 36 questions analyzed by 38 separate subgroups. A summary covering all questions and comparing key data with past surveys is available for $250. The complete report with more than 300 pages of data is available for $500. For information, contact Consumer Survey Editor, PACKAGING Magazine, Cahners Publishing Co., 1350 E. Touhy Ave, Des Plaines, IL 60018, or circle **500** on the Reader Service Card.

PLEASE RATE THIS ARTICLE

How would you rate this article? To reply, circle the appropriate number on the reader service card:

Outstanding	496
Above Average	497
Average	498
Below Average	499

ROBIN ASHTON

"Consumers now expect packaging to provide them with a host of convenience features and reduced environmental impact in addition to preservation and safety. They fail to see that such demands often conflict."

ADVERTISERS INDEX

Circle No.	Page No.
8	AVI, Astro-Valcour, Inc.	10
38	Auger Fabrication, Inc.	24
37	Cahners Exposition Group	58
34	Canon Copier	53
21	Chicago Trashpacker Corp.	28
	Classified Advertising	61-67
29	Creative Packaging Corp.	47
20	Cryovac, Division of W.R. Grace	28
19	Curwood Pkg. Ltd.	26
41*	**Doboy Packaging Machinery**	BC
23	DuPont Co.—Packaging Products - Surlyn	8-9
10*	**EIT**	12
16-17*	**Eastman Chemical Products Inc.**	23,25
36	en Route Card USA	56
105	Flo Stor	50A,50B
26-27	Gast Manufacturing	42
11	General Pkg. Equipment	12
6	Himont, Inc.	4-5
25	J.L. Clark	41
1-4	Kiwi Coders Corp.	IFC
42	Lansmont Corporation	50
39	Lermer Pkg. Corp.	24
14	Longford Equipment Int'l Ltd.	19
15	Marsh Co.	20
40	Menasha Corp.	IBC
13	National Starch and Chemical Corp.	14
9	PDC International Corp.	11
22*	**Quantum Chemical Corp., USI Division**	29
24	Shell Chemical Co.	37
35	SKF	54
28	3M Co.-Packaging Systems Division	44
33	Techform, Inc.	50
30-32	Thiele Engineering	48-49
5*	**Triangle Package Machinery Co.**	3
12	Weber Marking Systems	13
7	Westvaco	30-31

ADVERTISING SALES OFFICES

DES PLAINES, ILL. 60017-5080
Cahners Publishing Co.
1350 E. Touhy Ave. P.O. Box 5080

John Blatnik
Publisher

Edwin O. Landon
Jim Harvey
(708) 635-8800
Fax: (708) 635-0929

WEST COAST SALES
Jim Harvey

NEW YORK CITY
Denise Camens
(212)463-6418
Fax: (212) 463-6404

NEW JERSEY
Denise Camens

NEW ENGLAND
Denise Camens

NEW YORK, NY 10011-5381
Cahners Publishing Co.
249 W. 17th St.
(212) 645-0067
Fax: (212) 242-6987

WAYNE, PA. 19087-1749
Cahners Publishing Co.
487 Devon Park Dr.
Suite 206
(215) 293-1212
Fax: (215) 293-0359

Steve Osborne
(215) 293-1212

ATLANTA, GA.
Steve Osborne

CLASSIFIED RECRUITMENT
Carole Young Orlando
Manager
Cahners Plaza
1350 E. Touhy Ave. P.O. Box 5080
Des Plaines, Ill. 60017-5080
Fax: (708) 635-6856

EUROPE
Stuart Smith
Cahners Publishing Co.
27 Paul Street
London EC2A4JU
ENGLAND
Telephone 01-4471-628 7030
Telex 914911
Fax: 01-628 5984

TAIWAN
Mayco T.S. Lou
International Services, Inc.
RM 902,2, Chung Hsiao
P.O. Box 53-1039
Sec. 4, Taipei, Taiwan R.O.C.
Telex: (785) 13340
Phone: 02-7763196

ISRAEL
Asa Talbar
Talbar Media
P.O. Box 22917
Tel Aviv 61228
Israel

Pam Raca
Advertising Services Mgr.
Cahners Plaza
1350 E. Touhy Ave. P.O. Box 5080
Des Plaines, Ill. 60017-5080
(708) 635-8800
Fax: (708) 635-6856

PHOTOCREDITS

Cover: Vuksanovich, Inc.. **Awards Ballot:** Jack Grossman, Images Photographics. **Testing Equipment:** Courtesy of Dow Chemical Co.

*Indicates Advertiser in Packaging 1991 Buyers Guide.

Cahners Publishing Company, A Division of Reed Publishing USA ☐ Specialized Business Magazines for Building & Construction ☐ Research ☐ Technology ☐ Electronics ☐ Computing ☐ Printing ☐ Publishing ☐ Health Care ☐ Foodservice ☐ Packaging ☐ Environmental Engineering ☐ Manufacturing ☐ Entertainment ☐ Home Furnishings ☐ and Interior Design. Specialized Consumer Magazines for Child Care ☐ Boating ☐ and Wedding Planning.

PACKAGING® formerly Package Engineering including Modern Packaging (ISSN 0746-3820) (GST #123397457) is published monthly except semi-monthly in March by The Cahners Publishing Company, (Subscription includes all issues). Cahners Publishing Company is a Division of Reed Publishing USA, 275 Washington Street, Newton MA 02158-1630. Terrence M. McDermott, President; Frank J. Sibley, Executive Vice President; Charles E. Moodhe, Senior Vice President/General Manager, Chicago Division; Jerry D. Neth, Senior Vice President/Publishing Operations; J.J. Walsh, Senior Vice President/Finance; Thomas J. Dellamaria, Senior Vice President/Production dand Manufacturing; Ralph Knupp, Vice President/Human Resources. Circulation records are maintained at Cahners Publishing Company, 44 Cook Street, Denver, CO 80206-5800. Phone 303/388-4511. Second-class postage paid at Denver, CO 80206-5800 and additional mailing offices. **Postmaster: Send address corrections to PACKAGING®, P.O. Box 173377, Denver, CO 80217-3377.**

PACKAGING® formerly Package Engineering including Modern Packaging, copyright 1991 by Reed Publishing USA; Ronald G. Segel, Chairman and Chief Executive Officer; Robert L. Krakoff, President and Chief Operating Officer; William M. Platt, Senior Vice President. PACKAGING® formerly Package Engineering including Modern Packaging is distributed throughout the United States to executives with buying and specifying responsibility for packaging machinery, containers, materials and supplies.

Annual subscription rates for non-qualified people: USA, 1 year: $84.95, 2 years, $159.95; Canada, 1 year: $123, 2 years: $230; Mexico, 1 year: $114.95, 2 years, $214.95; other countries, 1 year, $149.95; $219.95 air mail; 2 years $279.95, $419.95 air mail. Single copies of the Product Sources Guide, $30. Single copies of the Packaging Line Planning Guide, $30. Single copies of regular issues are available for $10, $10 and $10 (USA, Canada/Mexico and foreign). Please address all subscription mail to Kris Cunningham, 44 Cook Street, Denver, Colorado, 80206-5800. REPRINTS OF PACKAGING® formerly Package Engineering including Modern Packaging articles are available in quantities of 500 or more. For a specific quotation, contact Andrea Marwitz, Cahners Plaza, 1350 E. Touhy Avenue, P.O. Box 5080, Des Plaines, Ill. 60017-5080; 708/635-8800.